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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,819	03/06/2002	Katsuhiro Ishii	Q68804	5697

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

NGUYEN, THUAN T

ART UNIT PAPER NUMBER

2685

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,819

Applicant(s)

ISHII, KATSUHIRO

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4-6</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Schiller (U.S. Patent Pub No. 2002/0006810 A1).

Regarding claims 1 and 7, this limitation is met as Schiller discloses a transmitting circuit using plural transmission frequency band, i.e., GSM 900 and DCS 1800 and a communication terminal unit comprising the transmitting circuit with an antenna and its other components (Fig. 2) comprising an input stage amplifier for amplifying an input signal and an operating condition setting circuit for controlling an optimally amplified frequency band by setting an operating condition of the input stage amplifier as well as a high pass filter and a low pass filter connected to an output of the input stage amplifier for amplifying a signal of frequency band passed by the high-pass filter and the low pass filter correspondingly, i.e., Figure 2 shows a same concept as the mobile phone comprising transceiver including a transmitter section and a receiver section with an impedance Z for controlling the switching between the output of the RX and the connection of the diode connected in serial to the output, for transmitting mode sends a bias current through the diode and the circuit (page 1, section 0003 to section

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0007) and the duplex filter including a high-pass filter and a low pass filter for handling dual band or multi-band for frequency bands GSM 900 and DCS 1800 (page 1, section 0008; page 2, section 0012, and page 3, section 0015).

As for claim 2, this limitation is met as Schiller shows to include transistors and setting a bias voltage of the transistors (page 2, section 0015, as a bias current is created suggesting a bias voltage is exist within the circuit).

As for claim 3, this limitation is met as Schiller discloses to have dual band for GSM 900 and DCS 1800 frequency bands (Fig. 2, and page 2, section 0012).

As for claim 5, this limitation is met as Schiller shows that currentless semiconductor components are used within the device (page 2, section 0012).

Claim Rejections - 35 USC 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiller (U.S. Patent Pub No. 2002/0006810 A1) in view of Dent et al (US Pub No. 2002/0101907 A1).

Regarding claims 4 and 6, Schiller does not address that the communication device including "class C amplifier" and "wherein each of the amplifiers is produced by GaAs process"; however, in a same field of providing multi-band communication, Dent

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teaches a same technique of using class C amplifier and using GaAs process (Dent, Figs. 1, 4-5, and page 3/section 0033, page 4/section 0042, page 5-6, section 0048 & 0051 for multi-band technique and GaAs; and page 6/section 0057 for class C amplifier). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schiller's technique with Dent's technique of using class C amplifier and GaAs process in order to adapt to mismatch power level within the communication device, and Dent offers the adjustable matching network as disclosed for preserve the power amplifier linearity (Dent, page 6, section 0057).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Shimizu (US Patent 6,201,952 B1) discloses a radio communication apparatus related to amplifying and using LPF and HPF.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).*

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is (703) 306-0377.



TONY T. NGUYEN
PATENT EXAMINER *FT*

Tony T. Nguyen
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July 19, 2004